

What is claimed is:

1. A liquid crystal display device, comprising:
a substrate;
5 a gate electrode over the substrate;
a first semiconductor layer over the substrate; and
a source electrode and a drain electrode over the
first semiconductor layer, the source and drain electrodes
having a first metal layer and a second metal layer formed
10 in a same pattern and a defining a separation between the
source electrode and drain electrode.
2. The device of claim 1, further comprising:
a gate insulating film over the gate electrode and
15 between the substrate and the first semiconductor layer;
a second semiconductor layer between the first metal
layer and the first semiconductor layer, the second
semiconductor layer defining a portion of the separation
region in the same pattern as the first and second metal
20 layers
a protective layer over the source and drain
electrodes; and
a pixel electrode provided on the protective layer.
- 25 3. The liquid crystal display device as claimed in claim
1, wherein
the first metal layer includes molybdenum (Mo) or
titanium (Ti).
- 30 4. The liquid crystal display device as claimed in claim
1, wherein

the second metal layer includes aluminum (Al), an Al alloy, copper (Cu) or a Cu alloy.

5. A liquid crystal display device, comprising:

a substrate;

a gate electrode over the substrate;

a first semiconductor layer over the gate electrode;

a source electrode and a drain electrode over the first semiconductor layer, the source electrode and drain electrode including a first layer and a second layer patterned to form a separation region between the source and drain electrodes; and

a second semiconductor layer beneath the first metal layer and having a same pattern as the first metal layer.

6. The device of claim 5, further comprising:

a gate insulating film over the gate electrode;

a protective layer over the source and drain electrodes; and

a pixel electrode over the protective layer.

7. The liquid crystal display device as claimed in claim 5, wherein

the first metal layer includes Molybdenum (Mo) or titanium (Ti).

8. The liquid crystal display device as claimed in claim 5, wherein

the second metal layer includes aluminum (Al), an Al alloy, copper (Cu) or Cu alloy.

9. A method of fabricating a liquid crystal display device, the method comprising the steps of:

forming a gate electrode on a substrate;

forming a gate insulating film over the gate
5 electrode and on the substrate;

forming a first semiconductor layer over the gate insulating film; and

forming a first metal layer on the first semiconductor layer and a second metal layer over the
10 first metal layer; and

forming source and drain electrodes from the first metal layer and the second metal layer by patterning a separation region in the first and second metal layers; and

15 patterning the first metal layer and the first semiconductor layer in a same pattern.

10. The method as claimed in claim 9, further comprising the steps of:

20 forming a second semiconductor layer between the gate insulating film and first semiconductor layer and patterning the first semiconductor layer such that a portion of the second semiconductor layer corresponding to the gate electrode is exposed;

25 forming a protective layer on the source and drain electrodes; and

forming a pixel electrode on the protective layer.

11. The method as claimed in claim 9, wherein

30 the step of patterning the first semiconductor layer and the first metal layer includes dry etching the first

semiconductor layer and the first metal layer.

12. The method as claimed in claim 9, wherein
the step of forming the source and drain electrodes
5 includes wet etching the second metal layer, and
the step of patterning the first semiconductor layer
and first metal layer includes using the etched second
metal layer as a mask to dry etch the first semiconductor
layer and the first metal layer.

13. The method of claim 9, wherein
the step of patterning the first metal layer and the
first semiconductor layer includes using the second metal
layer a mask.

14. The method device as claimed in claim 9, wherein
the first metal layer is formed from molybdenum (Mo) or
titanium (Ti).

15. The method as claimed in claim 9, wherein
the data metal layer is formed from aluminum (Al), an Al
alloy, copper (Cu) or a Cu alloy.

16. A method of fabricating a liquid crystal display
device, the method comprising the steps of:
forming a gate electrode on a substrate;
forming a gate insulating film on the substrate;
forming a first semiconductor layer over the gate
insulating film; and

forming a first metal layer on the first
semiconductor layer and a second metal layer over the

first metal layer;

forming source and drain electrodes in a same pattern from the first and second metal layers by patterning a separation region in the first and second metal layers.

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17. The method of claim 16, wherein the step of forming the source and drain electrodes includes

wet etching the second metal layer, and
10 using the etched second metal layer as a mask to dry etch the first metal layer.

18. The method as claimed in claim 15, further comprising the steps of:

15 forming a second semiconductor layer between the first semiconductor layer and the gate insulating layer;

forming a protective layer on the gate insulating film; and

20 forming a pixel electrode on the protective layer.

19. The method device as claimed in claim 15, wherein the first metal layer is made from molybdenum (Mo) or titanium (Ti).

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20. The method as claimed in claim 15, wherein the second metal layer is formed from or aluminum (Al), an Al alloy, copper (Cu) and a Cu alloy.

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